NEW HAMPSHIRE POLLUTION PREVENTION PROGRAM

Wastelines

Fall 2004

Pollution Prevention Intern Partnership Still Going Strong After 10 Years!

Since the initiation of the Pollution Prevention Internship (P2I) program in 1994, 46 New Hampshire businesses and organizations have worked with 93 University of New Hampshire students on pollution prevention and energy efficiency projects through the program. The major goals of the program are to assist various industries in discovering the benefits of P2, as well as provide trained student interns to assist industries in implementing P2 methods.

This year the New Hampshire Pollution Prevention Program employed two UNH interns: Jonathan Royce and Abebe Negash. Below, Abebe and Jon describe what they worked on and how it has benefited them.

Jonathan Royce, UNH Engineering Major

Jonathan Royce

I worked on the Photochemical Assessment Monitoring Stations (PAMS) program this summer. The program began when the 1990 Clean Air Act Amendments (CAAA) were put into effect. These amendments required the government to establish rules to enhance the monitoring of air quality and pollution levels. These rules were implemented to ensure that National Ambient Air Quality Standards (NAAQS) are being enforced.

As an intern in the PAMS program, I helped to ensure that equipment was working properly, gas tanks were changed, and logbooks and reports were updated. My chemistry background, especially organic chemistry, was helpful since it directly related to the gas chromatography work I have done here.

2004 NHPPP-UNH interns pose with DES Assistant Commissioner Mike Walls (far right) and their mentors.

Working with the PAMS program was interesting and rewarding work. The results obtained at the site will be used by EPA and other governmental agencies to determine how effective current pollution laws are at controlling emissions. The results are also used for air quality reporting, and statewide health protection.

This internship gave me firsthand experience monitoring air quality, and making the connection between New Hampshire businesses, federal

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New Hampshire Green Yards Program Receives Governor's Incentive Award

A Governor's Incentive Award was recently awarded to Pamela Sprague in recognition of the hard work, energy and commitment she and other DES staff members demonstrated in the development and implementation of the N.H. Green Yards Program, which works with motor vehicle salvage yards. Motor vehicles are the premier recycled consumer product in this country; over four million end-of-life vehicles are recycled annually in the United States. The program works with auto recyclers to improve their environmental practices at auto salvage yards by providing them with education and compliance assistance. The Governor's Incentive Awards are based on a "good idea'" or "going the extra mile" for the benefit of the state. The N.H. Green Yards Program, a multi-media work effort, has enjoyed active participation by many DES employees from all divisions. Congratulations to all N.H. Green Yards Program participants!

For more information on the N.H. Green Yards Program visit www.des.state.nh.us/SW/GreenYards/.

Compact Disks Made of Corn?

In April, a Japanese firm produced the first CD made of corn. The MildDisk is biodegradable and is made at lower temperatures than the current polycarbonate types, which are non-biodegradable and cause air pollution when incinerated. If widely used, the corn CDs will reduce the environmental impact from the film, music, and computer industries.

The corn CDs are expected to cost about three times as much as the polycarbonate types, but Sanyo says that once production gets going, there should be a price reduction. The MildDisks are expected to be available at the end of this year.

For more information, visit www.afterdawn.com/news/archive/4542.cfm.

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and state regulations, and the health of the public and environment.

Abebe Negash, UNH Chemical Engineering Major; 2004 NHPPP Intern Liaison

Abebe Negash

During my 2004 UNH/NHPPP internship, one of my roles was to act as a liaison to other UNH interns. I assisted the NHPPP by conducting research on current projects for schools, motor vehicle salvage facilities, and universal waste outreach. I also participated in training sessions and performed site visits.

I have had the opportunity to exercise my school-based knowledge of writing papers, using computers, and conducting independent research in a job setting. Additionally, the internship was a great opportunity to communicate with people from state, federal and local levels. It was a great summer working with NHPPP employees and my professor, Dr. Ihab Farag, who encouraged me every step of the way. Most of all, I found that waste reduction at the source is the best solution. Armed with this knowledge, in my future career I will expect to be more aware of environmental risks while working in the chemical engineering field.

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For a free subscription, contact
April Arroyo, Managing Editor
N.H. Department of Environmental Services
PO Box 95
Concord, NH 03302-0095
1-800-273-9469
aarroyo@des.state.nh.us

www.des.nh.gov/nhppp

The New Hampshire Pollution Prevention Program is a free, confidential, non-regulatory, technical and compliance assistance program for New Hampshire businesses, municipalities and others. The NHPPP maintains an information clearinghouse, conducts on-site pollution prevention opportunity assessments, provides pollution prevention planning assistance, and organizes conferences and workshops.

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NHPPP Answers your Questions on Small Quantity Generators

Q: I have heard bits and pieces about the new Small Quantity Generator Self-Certification Program. Does it pertain to my company? Can you explain how the program works?

A: Small quantity generators (SQGs) are facilities that generate less than 220 pounds of hazardous waste per month. If your facility generates this much hazardous waste, then your facility needs to participate in the SQG self-certification program.

Small quantity generators were targeted because they need just as much attention as the larger generators, and have management issues unique to their size. About 25 percent of all SQGs (over 1,000) are located in wellhead protection areas; consequently, their waste streams are a frequent source of contamination of soil and groundwater. SQGs need assistance to correctly manage their waste streams and stay in compliance, but with over 4,000 SQGs in the state, DES cannot efficiently inspect each one.

The SQG Self-Certification Program requires each SQG to review its hazardous waste management procedures, conduct a self-inspection of its facility, and certify New Hampshire *Hazardous Waste Rule* compliance to DES every three years. SQGs that are not in compliance must develop a corrective action plan, specifying how they plan to come into compliance within 90 days from the date the declaration is due. SQGs must submit a fee of $180, payable every three years at the time of certification. Political subdivisions of the state, such as municipalities, are exempt from the fee but not from the certification requirement.

Potential benefits of the SQG self-certification program to businesses:

- Helping a facility achieve and maintain compliance.
- Making the work environment safer and decreasing potential future liability.
- Identifying ways to save money. For example, if used oil is recycled, the amount recycled does not count towards a generator's classification.
- Accessing state sponsored training and technical assistance opportunities.

DES will provide education and training to assist SQGs to comply with the New Hampshire *Hazardous Waste Rule* requirements as well as the new certification requirement. NHPPP works closely with the small quantity generator program, providing P2 training and one-on-one assistance. For information go to www.des.nh.gov/nhppp.

For more information on the SQG program visit www.des.nh.gov/sqg. For a listing of training sessions, times and dates frequently visit www.des.nh.gov/sqg/trainingDates.htm.

AED Battery Disposal

Does your facility have an automated external defibrillator (AED) on site? If it does, make sure to check the rechargeable batteries frequently and dispose of them properly. An AED's battery is usually either lithium manganese dioxide (LiMnO2) or lithium sulfur dioxide (LiSO2).

LiMnO2 batteries are rated as non-hazardous only when fully discharged, but any damaged LiMnO2 battery must be managed as a hazardous waste. On the other hand, LiSO2 batteries that have been fully discharged to zero volts do not exhibit the characteristic of reactivity, according to EPA. Therefore, proper disposal of LiSO2 batteries requires the user to manually disable them prior to disposal.

If you still aren't sure if you have a LiSO2 battery and/or you can't discharge the battery, and you don't want to send it out as hazardous waste, then any Home Depot or Lowe's should take it as part of their cordless tool recycling program. If your company policy is to regularly change batteries, you have a damaged AED battery, or you choose not to bring it to one of the stores mentioned, your business would need to dispose of it according to the New Hampshire *Hazardous Waste Rules* (www.des.nh.gov/rules/hwrules.pdf).

Visit www.hrm.uh.edu/docs/lpmi%20archives/2004.05.htm for more information on AED batteries. *Information for this article was taken in part from the Ohio Department of Health.*

More on Environmental Management Systems

In a recent study it was noted that regulations were the number one reason why environmental management systems (EMS) were adopted.[1] While the link exists between the increased environmental performance and the adoption of an EMS, more work is needed to discover if there is financial gain through that adoption.

How does an EMS relate to pollution prevention? Pollution prevention is the practice of reducing or eliminating wastes or pollutants at the source. This involves thinking in a broad and comprehensive way about environmental impacts, making P2 planning and implementation the most common basis for an EMS.

To view the executive summary of the report, visit www2.chass.ncsu.edu/darnall/docs/OECD_EXECUTIVE_SUMMARY—May04.pdf.

Are Those Free Samples *Really* Free?

Businesses, non-profits, schools, and others receive free samples all the time. Problems arise when the samples are chemicals and exhibit hazardous characteristics. When these *free* samples expire without the company having used them, the cost of disposal—along with all of the proper paperwork—is your company's responsibility.

What's a Company to Do?

If your facility can't use the sample being offered, don't take it! You have the right to decline acceptance of any free chemical samples. If a sample has not been requested and came in the mail, just mark "return to sender" on the unopened package and put it back in the outgoing mail. If the sample arrives on a hazardous materials truck, simply do not sign to accept the chemical sample.

If your organization receives many free samples, adopt a policy for which ones to accept or not to accept. For example, do not accept the sample unless the manufacturer agrees to take back the unused portion. If the manufacturer feels that their product is better than the one you currently use, they should agree to the terms. Or, do not accept the sample if it cannot safely be discarded as solid waste, or safely discharged to sewer or septic systems. (Check with local and state laws as applicable.)

If samples are dropped off by sales representatives and are not requested, simply state up front, "***no solicitations***." It sounds simple, and it is.

By not accepting free samples, groups and businesses are preventing potential pollution and perhaps saving money!

[1]Darnall, 2004, *Environmental Policy Tools and Firm-Level Management Practices in the U.S.*

Environmentally Preferable Purchasing & Locally Produced Goods

There are many benefits to ordering locally produced goods. Among them are supporting the local economic infrastructure and having a face to face relationship with the supplier. Another benefit that you might not know about is that you are also practicing Environmentally Preferable Purchasing (EPP), by reducing transportation costs. Less driving equals fewer emissions put into our environment.

The Environmental Protection Agency defines EPP as a process for selecting products and services that have lesser or reduced effect on human health and the environment when compared with competing products and services that serve the same purpose.

EPP is one aspect of pollution prevention; it is the part that deals with goods and services. For example, when selecting paper for *Wastelines*, we consider the percentage of post-consumer content, whether the paper packaged in paper or plastic, and the distance the paper has to travel to get the printers.

The paper used in this issue of *Wastelines*, came from Monadnock Paper Company of Bennington. They have strict environmental standards for their paper production, a high percentage of post-consumer content, and the paper is produced locally. This is one way we can

EPP, *continued on page 6*

P2 in Shipping and Receiving Departments

Out of Sight, Out of Mind?

At many facilities the shipping and receiving department is "behind the scenes." It's easy to neglect this hidden department when reviewing ways to reduce a facility's waste.

Use this checklist to help you assess whether you are maximizing waste reduction and P2 opportunities in your shipping and receiving department.

___ Reduce the generation of corrugated cardboard waste by working with suppliers to provide returnable and reusable containers. (At least one New Hampshire company is currently testing this, and it is working well.)

___ Keep recoverable items, such as corrugated cardboard containers, separate from waste.

___ Compact or bale cardboard or plastic if there are large quantities. Baled recyclables produce better income than loose materials.

___ Share compactors and balers with neighboring businesses, if your recyclable quantities are small.

___ Buy items in bulk, which reduces packaging waste.

___ Designate storage space for recyclable items.

___ Reuse and recycle pallets, or send them back if possible.

___ Ask suppliers to provide packing materials that are recyclable, reusable or returnable. ***Baudelaire Inc.***, Keene (Governor's Award Winner 2000), implemented a Styrofoam recycling program that resulted in the reuse of 60,000 cubic feet of Styrofoam peanuts and saved $50,000 in the purchase cost of new peanuts. Baudelaire also encouraged other businesses in its community to reuse packing materials.

What things are you doing in your shipping departments that practice pollution prevention? Send your comments to nhppp@des.state.nh.us. Some comments might be used on our web site or in future issues of *Wastelines.*

Information for this article was taken in part by the Michigan Department of Natural Resources.

What's New at DES? The Addition of New Programs!

Please join us in welcoming the Bureau of Environmental and Occupational Health, and the Coastal Program to DES. For a short time, New Hampshire Estuaries Program will also reside at DES before being placed permanently at UNH.

Environmental and Occupational Health

This unit consists of three programs: Occupational Health, Health Risk Assessment and Radon/Indoor Air Quality. The primary goal of the Environmental and Occupational Health Unit (EOH) is to protect the health and well being of New Hampshire citizens by reducing the prevalence of lead poisoning, providing free safety and health consultations for employers, regulating the lead and asbestos abatement industries, and evaluating the health risk associated with exposure to chemical contaminants in the environment. To read more about the EOH unit, visit www.des.nh.gov/EOH/.

Coastal Program

The Coastal Program's mission is to "balance the preservation of natural resources of the coast with the social and economic needs of this and succeeding generations." To achieve the goals of the mission statement, the program maintains five primary objectives: prevent and abate coastal pollution, provide for public access to coastal lands and waters, foster community stewardship and awareness of coastal resources, protect and restore coastal natural resources, and encourage a viable economy with adequate infrastructure. For more on the Coastal Program, visit www.des.nh.gov/Coastal/.

New Hampshire Estuaries Project

The New Hampshire Estuaries Project (NHEP) outlines, within their Comprehensive Conservation and Management Plan, goals, objectives and actions designed to improve, protect and enhance the environmental quality of the state's estuaries. NHEP has developed an environmental monitoring program, an annual grants program and partnership projects to meet its objectives. Visit www.nh.gov/nhep/ to read more about the New Hampshire Estuaries Project.

N.H. Department of Environmental Services
Waste Management Division
PO Box 95
29 Hazen Drive
Concord, NH 03302-0095

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www.des.state.nh.us/hwcs/HWCCert/

November 20
Trade Show & Environmental Conference
Motor Vehicle Salvage Facilities
Manchester School of Technology
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nhgreenyards@des.state.nh.us

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"practice what we preach."

Monadnock Paper is committed to other environmental initiatives that may provide management ideas to your company, whether you are buying paper products or improving your pollution prevention strategies. To see a complete listing of its environmental commitments, go to www.mpm.com/overview/framepage.html. (*This does not constitute a DES vendor endorsement; the information is provided as a noteworthy P2 resource.*)